the number of patients achieving major molecular and complete cytogenetic responses. Fewer patients treated with nilotinib progressed to advance or blast phase than with imatinib. The objective of this analysis was to assess, from a HK societal perspective, the cost and quality-adjusted-life-years (QALYs) of imatinib versus nilotinib in newly-diagnosed Ph+ CML-CP. **METHODS:** A literature-based Markov model was developed to estimate the lifetime QALYs and costs of typical 47 year-old CML-CP patients initiating first-line (FL) therapy. Two periods were considered: the first year, reflecting the ENESTnd data, and all subsequent years (until all patients had died/reached 100 years), based on stratified disease progression data from the International Randomized Study of Interferon and STI571 (IRIS) study. Patients who discontinued FL therapy were modeled to receive one additional tyrosine kinase inhibitor (TKI). Prognosis after FL therapy discontinuation was modeled using published studies. Local demographics and costs were used to populate the model. Quality of life was assumed to vary by disease stage and treatment status (on/off TKI). The threshold used to define a cost-effective therapy was the WHO's 3 x GDP/capita (i.e., HKD247,712; USD31,758; USD1 = HKD7.8). **RESULTS:** Compared to imatinib, nilotinib results in a gain of 2.32 life years and 2.30 QALYs. The cost/life year gain was HKD156,042 (USD20,005) and incremental cost/ QALY was HKD157,313 (USD20,168). Univariate sensitivity analysis showed results were generally robust. Key drivers were the duration of analysis, discount rates, age at therapy initiation, and inclusion/exclusion of indirect costs. In probabilistic sensitivity analysis, 95% of model replications cost ≤HKD 180,000 (USD23,077)/QALY gained. **CONCLUSIONS:** Using local and non-local data, this analysis suggests that nilotinib is cost-effective compared to imatinib as FL treatment for CML-CP patients from a HK societal perspective.

PCN58

A COMPREHENSIVE COST-EFFECTIVENESS ANALYSIS OF LENALIDOMIDE FOR MULTIPLE MYELOMA PATIENTS WHO HAVE RECEIVED AT LEAST ONE PRIOR THERAPY

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OBJECTIVES: Guidelines preferred (category 1) salvage therapies for relapsed/refractory multiple myeloma typically include bortezomib (BTZ) and lenalidomide. Since no randomized controlled trials (RCT) or relative effectiveness assessments comparing both drugs exist a comprehensive assessment of the cost-effectiveness of lenalidomide+dexamethasone (LEN/DEX) was performed in different drug sequencing (≥1 prior vs. 1 prior therapy) using indirect comparison. **METHODS:** A Markov-type model was designed to assess long-term cost-effectiveness of LEN/DEX vs BTZ (indirect), using patient-level data from the MM-009/MM-010 RCTs (LEN/DEX vs. DEX) and published APEX trial data (BTZ vs. DEX). Due to potential crossover-induced bias, overall survival (OS) was estimated using a quantitative relationship between time-to-progression/progression-free-survival and OS (censored normal weighted Tobit regression model, based on 153 studies containing 230 treatment arms and 22,696 MM patients). The indirect comparison was based on a mixed treatment comparison of time-to-progression from the aforementioned trials. The Portuguese societal perspective was assumed. Effectiveness was measured in life years (LY) and quality-adjusted life years (QALY). Annual discount rates were set at 5%. Probabilistic sensitivity analysis was conducted with Monte-Carlo simulations. **RESULTS:** LEN/DEX is estimated to add substantial clinical benefits to BTZ. In patients with ≥1 prior therapy incremental LY, QALY and costs with LEN/DEX were 1.1 LY (95%CI: 0.4;2.0), 0.8 QALY (95%CI: 0.3;1.5) and 49,266€ (95%CI: 37,730€;67,342€) and in patients with only 1 prior therapy 1.4 LY (95%CI: 0.4;2.9), 1.1 QALY (95%CI: 0.3;2.1) and 57,293€ (95%CI: 39,303€;84,809€), respectively. Corresponding ICERs (LEN/DEX vs BTZ) ranged from 39,770€/LY to 61,649/QALY. **CONCLUSIONS:** Lenalidomide plus dexamethasone can be regarded as a cost-effective choice compared to bortezomib monotherapy for relapsed/refractory multiple myeloma patients in Portugal.

PCN59

COST-EFFECTIVENESS OF PAZOPANIB VERSUS SUNITINIB AND BEVACIZUMAB ASSOCIATED TO INTERFERON ALPHA AS FIRST LINE TREATMENTS FOR METASTATIC RENAL CELL CARCINOMA

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OBJECTIVES: Renal cell carcinoma (RCC) is a prevalent form of kidney cancer and is associated with a poor prognosis. Less than 10% of patients with advanced or metastatic disease (mRCC) survive beyond 5 years. Recently introduced therapies are associated with significant clinical improvements over standard treatments such as interferon alfa (IFNα). The objective of this research was to evaluate the cost-effectiveness of novel first line treatments for mRCC under the Brazilian Public Health System perspective. **METHODS:** A Markov model was designed to simulate mRCC progression, mortality and associated costs. The model was evaluated in a period of 2 years. A systematic review of the literature was conducted on the efficacy and safety of pazopanib, sunitinib, and bevacizumab associated to INFα in patients treated for mRCC. Costs and consequences of the disease treatment were computed for each targeted alternative. Only direct medical costs were considered and reported in 2011 Brazilian currency (1BRL=0.60USD). Costs and outcomes were discounted at 5% yearly. Outcomes assessed were progression-free survival (PFS) and quality adjusted life years (QALY). Stochastic simulations tested model robustness. **RESULTS:** No direct comparison studies were found evaluating the efficacy of the alternatives. Thus, an indirect comparison was applied in order to determine the relative efficacy of each therapy. The indirect PFS hazzard ratio (95% CI) suggests that pazopanib is not statistically different from sunitinib (0.93 [0.56, 1.56]) or bevacizumab+IFNα (0.79 [0.48, 1.32]). Estimated QALYs were 0.93 for sunitinib, 0.90 for pazopanib, and 0.88 for bevacizumab+INFα. The incremental cost-effectiveness ratio (ICER) revealed that sunitinib costs about R$245,000 per QALY gained compared to pazopanib. Bevacizumab+INFα was dominated across all scenarios. Sensitivity analysis confirmed the base case results. **CONCLUSIONS:** Pazopanib reported lower costs and similar benefits across studied comparators as first line treatment of patients diagnosed with mRCC under the Brazilian public perspective.

PCN60

COST EFFECTIVENESS OF NILOTINIB, DASATINIB AND IMATINIB AS FIRST LINE TREATMENT OF CHRONIC MYELOID LEUKEMIA IN COLOMBIA 2011

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OBJECTIVES: To evaluate economics of nilotinib 600 mg and dasatinib 100 mg, compared to imatinib 400 mg, as first line therapy in chronic myeloid leukemia in Colombia, from third payer perspective. **METHODS:** A markov model used to evaluate 100 patients, aged 55 years, with newly diagnosed CML in chronic phase, in a 10 year time horizon. Progression free life years saved (PF-LYS) were considered the analysis outcome. Transition probabilities were analyzed in the model according to literature review. A 3% discount rate was applied to costs and outcomes. In the absence of any head to head trials to compare nilotinib and dasatinib, comparisons were made independently for each one versus imatinib. Costs analysis included direct medical costs obtained from local health care providers databases at prices for year 2011. Transplantation costs were excluded. Prices for medicines were estimated from official government top reimbursement prices. There was a univariate and multivariate Montecarlo sensibility analysis. **RESULTS:** Nilotinib was greater expected PF-LYS (15,376 vs. 14,643 for Imatinib), followed by Dasatinib (15,108 vs. 14,789 for Imatinib). Imatinib had lower total lifetime costs. The incremental cost-effectiveness ratio (ICER) was USD $6.828 per PF-LYS in the Nilotinib arm and USD $32.501 per PF-LYS for Dasatinib arm, each compared to Imatinib. When analyzing indirectly Nilotinib vs. Dasatinib, Nilotinib was found to be dominant due to higher efficacy (267,65 PF-LYS) and less costs (USD $5.290) in the base case. The multivariate sensitivity analysis showed that Nilotinib maintained its dominance against Imatinib and Dasatinib in most scenarios. The average estimated cost to manage disease progression per three months was USD $ 17.335 which was considered as threshold. **CONCLUSIONS:** From a third party payer perspective in Colombia, using PF-LYS, nilotinib is highly cost-effective when compared to imatinib and dominant vs dasatinib in first line therapy for CML in chronic phase.

PCN61

COST-EFFECTIVENESS OF SUNITINIB + BEST SUPPORTIVE CARE FOR THE TREATMENT OF UNRESECTABLE PANCREATIC NEUROENDOCRINE TUMORS IN MEXICO

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OBJECTIVES: Patients with non-resectable pancreatic Neuroendocrine Tumors (NET) have very few therapeutic alternatives. Sunitinib had showed a substantial clinical benefit in this group of patients, however there are few economic studies pursuing to estimate its economic consequences. The objective of this study was to estimate the cost-effectiveness of sunitinib in the treatment of well-differentiated non-resectable pancreatic NET, from the perspective of the Social Security Mexican Institute (IMSS). **METHODS:** A three health states Markov model (pre-progression, post-progression, death; 2-week cycles) was used to estimate the health and economic consequences of sunitinib 37.5/day+ best supportive care (BSC) regarding placebo+ BSC along a ten-years horizon (discount rate: 5%). Effectiveness measures were overall: survival (OS), progression-free survival (PFS) and quality adjusted life years gained (QALY). Resource utilization (BSC, adverse events management, medical follow up) was estimated through a Delphi Panel with Mexican oncologists (n=10). Unit costs of medication and medical resources were obtained from institutional sources. Deterministic and probabilistic sensitivity analyses were developed and acceptability curves were constructed. **RESULTS:** Sunitinib+BSC gained additional 0.49 years of PFS, 1.18 years of OS and 0.70 QALYs against placebo+BSC. Sunitinib+BSC increased medical direct costs (2011 US$) per patient in $20,854 (around two-fold the cost of placebo+BSC: $18,082), which was driven by acquisition costs of sunitinib and medical follow up before progression (due to the noted clinical benefit in sunitinib's patients). ICER's were $42,157, $17,662 and $29,808 per progression-free year, life-year and QALY gained, respectively, which remained robust through ±25% changes in main parameters. At willingness to pay higher than $40,000, $21,800 and $37,200 sunitinib+BSC becomes the most efficient alternative in regards to PFS, OS and QALYs, respectively. **CONCLUSIONS:** At IMSS, sunitinib+BSC would provide substantial clinical benefits to patients suffering unresectable pancreatic NET, although the latter would increase medical costs of treatment and clinical follow up.